

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 7,169,175 B2  
Issued : January 30, 2007  
Patentees : Cottone et al.  
For : SELF-EXPANDING STENT

**Certificate**  
**JAN 28 2009**  
**of Correction**

**Certificate of Mailing Under 37 C.F.R.  
§ 1.8**

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail on the date indicated below in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

|                           |                   |
|---------------------------|-------------------|
| Richard J. Sterner        | 35,372            |
| Agent Name                | PTO Reg. No.      |
| <i>Richard J. Sterner</i> | January 21, 2009  |
| Signature                 | Date of Signature |

Certificate of Correction Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT  
FOR PTO MISTAKE (37 C.F.R. §1.322(a))**

1. It is noted that printing errors appear in the referenced patent which are attributable to the Office.

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2. The location of the errors in the issued patent and the exact pages and line numbers where the errors are shown correctly in the application file are:

| Column and Line Number of Issued Patent                            | Location in Application File Where the Error is Shown Correctly        |
|--|--|
| <u>Claim 1, col. 7, line 31: "lank"</u><br>should read --link--.   | Amendment and Response submitted May 23, 2005, page 4.                 |
| <u>Claim 30, col. 10, line 15: "tour"</u><br>should read --four--. | Original claim 33, as part of application filed May 22, 2001, page 20. |

3. Both of the errors listed in the table above are attributable to the Office.

4. Patentees request correction of the printing errors by Certificate of Correction. Attached is a copy of Form PTO/SB/44 (also Form PTO-1050).

5. Please send the Certificate to the undersigned Agent.

6. In the interest of further assisting the Office in considering and processing this Request, Patentees are also providing herewith copies of the appropriate pages of their May 23, 2005 Amendment and Response and appropriate pages of the application as filed referred to in the table above. The relevant passages from these pages have been circled.

7. No fees should be due in connection with this communication. However, should it be determined that a fee is

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required for any reason, the Commissioner is hereby authorized to charge it to Deposit Account No. 23-1703.

Dated: January 21, 2009

Respectfully submitted



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Enclosures

- 1) Pages 1 and 4 of Patentees' May 23, 2005 Amendment and Response;
- 2) Pages 1 and 20 of application as filed on May 22, 2001; and
- 3) Form PTO/SB/44 with requested corrections.

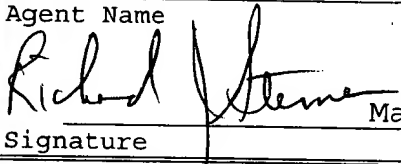
JAN 28 2009



1133279-0004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Cottone et al.  
Serial No. : 09/862,690  
Filed : May 22, 2001  
For : SELF-EXPANDING STENT  
Examiner : Sarah K. Webb  
Group Art Unit : 3731

|  |                   |
|--|-------------------|
| CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R.  |                   |
| §1.8   |                   |
| I hereby certify that this paper is being facsimile transmitted to the United States Patent and Trademark Office on the date indicated below at the facsimile number <u>703-872-9306</u> . |                   |
| Richard J. Sterner   | 35,372            |
| Agent Name   | PTO Reg. No.      |
|    | May 23, 2005      |
| Signature  | Date of Signature |

Attention: Examiner Sarah K. Webb

Group Art Unit: 3731

Facsimile No.: 703-872-9306

No. of Pages: 19

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

AMENDMENT AND RESPONSE

Sir:

This is in response to the final Office Action mailed November 24, 2004 and to the Advisory Action mailed March 29, 2005. This communication also serves as the response required

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Please amend the application as follows:

In the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A self-expanding stent comprising a lattice,

wherein the lattice comprises a first and a second helix forming a hollow tube having a longitudinal axis and no free ends;

wherein the first helix comprises a plurality of nonsinusoidal undulations,

wherein the second helix comprises a plurality of elongate link connection elements in series with the undulations, and the connection elements connect fewer than all of the undulations in adjacent turns of the first helix, and

wherein the first and second helices proceed circumferentially in opposite directions along the entire longitudinal axis of the hollow tube.

2. (original) The self-expanding stent of claim 1, wherein each undulation is formed from ascending and descending arms connected together at a junction point.

3. (original) The self-expanding stent of claim 2, wherein the connection element extends between the junction points lying on adjacent undulations.

4. (previously presented) The self-expanding stent of claim 3, wherein the number of connection elements in each 360 degree turn of the first helix is at least two.

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## SELF-EXPANDING STENT

This application claims the benefit of U.S. Provisional Application No. 60/206,211, filed May 22, 2000.

### FIELD OF THE INVENTION

The present invention relates to flexible stents that are implanted in a lumen in the body and in particular in blood vessels.

### BACKGROUND OF THE INVENTION

Stents are scaffolds which are positioned in diseased vessel segments to support the vessel walls. Stents are used in angioplasty to repair and reconstruct blood vessels. Placement of a stent in the affected arterial segment prevents elastic recoil and closing of the artery. Stents also prevent local dissection of the artery along the medial layer of the artery. Stents may be used inside the lumen of any physiological space, such as an artery, vein, bile duct, urinary tract, alimentary tract, tracheobronchial tree, cerebral aqueduct or genitourinary system. Stents may also be placed inside the lumen of human as well as non-human animals.

In general there are two types of stents: radially, self-expanding and radially, balloon-expandable. The balloon-expandable stent is placed in a diseased segment of a vessel by inserting an unexpanded stent into the affected area within the vessel. The stent is expanded by positioning a balloon inside the stent and inflating the balloon to expand the stent. Inflation remodels the arterial plaque and secures the stent within the affected vessel. One problem with balloon stents is

33. A self-expanding stent comprising a lattice, wherein the lattice comprises two different types of helices forming a hollow tube having no free ends, the first type of helix being formed from a plurality of zigzags, the second type of helix being formed from a plurality of connection elements in series with the zigzags, wherein there are four connection elements in each 360 degree turn of the first type of helix and the first and second types of helices proceed circumferentially in opposite directions along the longitudinal axis of the hollow tube.

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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SERIAL NO. : 09/862,690  
ISSUE DATE : January 30, 2007  
INVENTOR(S) : Cottone et al.

Claim 1, col. 7, line 31: "lank" should read --link--.

Claim 30, col. 10, line 15: "tour" should read  
--four--.

**MAILING ADDRESS OF SENDER (Please do not use customer number below):**

Richard J. Sterner, White & Case LLP  
1155 Avenue of the Americas  
New York, New York 10036

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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**JAN 28 2009**